

Table 3-1
Detected Analytes in Groundwater in Soil Investigation Area 4^a

Location ID	SJMW001	SJMW002	SJMW003	SJMW004D	SJMW004S	SJMW005
Sample Date	5/1/2012	5/2/2012	5/1/2012	07/12/2013	05/17/2013	07/11/2013
X coord	3215983.16	3216109.79	3215744.17	3215492.537	3215489	3215385.506
Y coord	13856906.77	13856578.22	13856486.95	13856034.98	13856028	13856073.478
Conventionals (mg/L)						
Total Dissolved Solids	2,730	1,520	5,040	3170	2530	2120
Total Suspended Solids	63	77.5	22	231	15.5	15
Metals (mg/L)						
Aluminum	0.0245	J	1.22	0.191	J	1.47
Arsenic	0.002	U	0.0105	J	0.00305	J
Barium	0.245	J	0.25	0.256	J	0.172
Cadmium	--	--	--	5.0x10 ⁻⁵	J	0.000132
Chromium	0.0015	J	0.00298	J	0.0023	J
Cobalt	0.00465		0.00307		0.00152	J
Copper	0.00315	U	0.00355	J	0.0087	J
Lead	0.002	U	0.00933	J	0.00315	J
Magnesium	176	J	41.4	J	184	J
Manganese	2.21		2.04		2.29	
Mercury	1.00x10 ⁻⁵	U	4.00x10 ⁻⁵	J	1.50x10 ⁻⁵	U
Nickel	0.00035	U	0.00135	J	0.00035	U
Thallium	6.60x10 ⁻⁵	J	5.40x10 ⁻⁵	J	5.55x10 ⁻⁵	J
Vanadium	0.0071		0.00583		0.0071	
Zinc	0.0016	J	0.0126		0.0153	
Dissolved Metals (mg/L)						
Aluminum	0.0212	J	0.011	J	0.609	J
Arsenic	0.002	U	0.0094	J	0.002	U
Barium	0.782	J	0.243		0.776	J
Cadmium	--	--	--		3.5x10 ⁻⁵	J
Chromium	0.0003	UJ	0.0003	U	0.0007	J
Cobalt	0.005		0.00288		0.00156	
Copper	0.0014	U	0.0011	J	0.002	U
Lead	0.002	U	0.002	U	0.0068	J
Magnesium	85.3	J	42	J	82.7	J
Manganese	2.26		2.07		2.23	
Mercury	1.0x10 ⁻⁵	U	1.0x10 ⁻⁵	U	1.0x10 ⁻⁵	U
Nickel	0.0029	J	0.001	J	0.0035	J
Thallium	5.20x10 ⁻⁵	J	5.00x10 ⁻⁶	U	1.50x10 ⁻⁵	U
Vanadium	0.0084		0.00385		0.0094	
Zinc	0.0029	J	0.0036	J	0.0075	J
Polycyclic Aromatic Hydrocarbons (µg/L)						
2-Methylnaphthalene	0.1	J	0.014	U	0.0145	U
Acenaphthene	0.35		0.089	J	0.014	U
Acenaphthylene	0.008	U	0.0175	J	0.021	J
Anthracene	0.16	J	0.255		0.19	J
Chrysene	0.015	U	0.0235	J	0.015	U
Fluoranthene	0.11	J	0.0105	U	0.028	J
Fluorene	0.074	J	0.042	J	0.0145	U
Naphthalene	0.12	UJ	0.044	U	0.044	UJ
Phenanthrene	0.069	J	0.0252	J	0.031	J
Pyrene	0.12	J	0.0325	J	0.0105	U
Semivolatile Organics (µg/L)						
1,3-Dichlorobenzene	0.86		0.05	U	0.05	U
4-Methylphenol	1.3		0.065	U	0.065	U
Benzoic acid	7		2.65	J	4.3	J
Benzyl alcohol	0.37	J	0.0587	J	0.039	U
bis(2-Ethylhexyl)phthalate	0.07	U	0.07	U	0.2	J
Dimethyl phthalate	0.011	U	0.019	J	0.0115	U
N-Nitrosodiphenylamine	0.14	J	0.0245	U	0.43	J

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Sample Date	5/1/2012	5/2/2012	5/1/2012	07/12/2013	05/17/2013	07/11/2013						
X coord	3215983.16	3216109.79	3215744.17	3215492.537	3215489	3215385.506						
Y coord	13856906.77	13856578.22	13856486.95	13856034.98	13856028	13856073.478						
Phenol	0.24	J	0.115	J	0.08	J	0.032	U	0.69	J	0.0315	U
Carbazole	0.059	J	0.0242	J	0.01	U	0.0095	U	0.0195	U	0.009	U
Phenols (µg/L)												
Pentachlorophenol	0.18	UJ	0.175	UJ	0.185	U	0.175	U	0.365	U	0.17	U
Volatile Organic Compounds (µg/L)												
1,1,2,2-Tetrachloroethane	0.51		0.08	U	0.08	U	0.08	U	0.08	U	0.08	U
1,2,4-Trimethylbenzene	0.33	J	0.11	J	0.0345	U	0.0345	U	0.29	J	0.0345	U
1,3,5-Trimethylbenzene	0.12	J	0.0445	U	0.0445	U	0.0445	U	0.14	J	0.0445	U
2-Butanone	3.1	J	0.95	U	0.95	U	0.95	U	0.95	U	0.95	U
4-Isopropyl toluene	0.03	U	0.26	J	0.03	U	0.03	U	0.03	U	2.9	
Acetone	17	J	3.85	U	3.8	J	1.65	U	2.25	U	1.65	U
Benzene	5		0.12	J	0.07	J	0.08	J	0.16	U	0.031	U
Bromochloromethane	0.23	J	0.08	U	0.08	U	0.17	J	0.08	U	0.08	U
Bromodichloromethane	0.85		0.225	J	0.1	J	0.0455	U	0.17	J	0.0455	U
Bromoform	1		0.32	J	0.08	U	0.08	UJ	0.08	U	0.08	UJ
Carbon disulfide	0.53		0.0522	J	0.24	J	0.085	U	0.17	J	0.075	U
Chlorobenzene	0.23	J	0.055	U	0.055	U	0.055	U	0.055	U	0.055	U
Chloroform	0.52		0.145	J	0.09	J	0.15	J	0.27	J	0.036	U
cis-1,2-Dichloroethene	0.0335	U	0.0335	U	0.0335	U	0.0335	U	0.08	J	0.0335	U
Dibromochloromethane	1.5		0.38	J	0.07	U	0.07	U	0.3	J	0.07	U
Dibromomethane	0.2	J	0.075	U	0.075	U	0.3	J	0.075	U	0.075	U
Ethylbenzene	2.3		0.025	U	0.025	U	0.025	U	1.2		0.025	U
Isopropylbenzene	0.09	J	0.1	J	0.0255	U	0.0255	U	0.55	J	0.0255	U
m,p-Xylene	6.6		0.165	U	0.13	J	0.055	U	0.38	J	0.055	U
n-Butylbenzene	0.13	J	0.0535	J	0.027	U	0.027	U	0.027	U	0.027	U
n-Propylbenzene	0.3	J	0.07	J	0.027	U	0.027	U	0.19	J	0.027	U
o-Xylene	3.4		0.037	U	0.037	U	0.037	U	0.15	J	0.08	J
tert-Butylbenzene	0.0295	U	0.0295	U	0.0295	U	0.0295	U	0.0295	U	0.06	J
Trichloroethene	0.15	J	0.645		0.16	J	0.05	U	0.05	U	0.05	U
PCB Aroclors (µg/L)												
Aroclor 1232	0.0006	U	0.0185	U	0.0215	U	0.005	U	0.3		0.007	U
Aroclor 1254	0.086	J	0.00455	U	0.006	U	0.00135	U	0.024	U	0.0065	U
Aroclor 1260	0.037	J	0.00545	J	0.00355	U	0.000485	U	0.013	U	0.007	U
Total PCB Aroclors ^b	0.123	J	0.00545	J	0.042	U	0.005	U	0.3		0.0065	U
Dioxin Furans (pg/L)												
2,3,7,8-Tetrachlorodibenzo-p-dioxin	32.4		8.92	J	9.9	U	0.59	U	43.3		0.53	U
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	3.16	J	0.353	U	0.337	U	0.318	U	0.357	U	0.515	U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	56.2		22.1	J	4.59	U	4.73	U	4.72	U	5.75	U
Octachlorodibenzo-p-dioxin	2,070		1,740		117		52	U	111		73	U
2,3,7,8-Tetrachlorodibenzofuran	110		29.3		59.9		0.313	U	145		0.258	U
1,2,3,7,8-Pentachlorodibenzofuran	2.4	J	0.306	U	2.73	J	0.166	U	3.35	U	0.287	U
2,3,4,7,8-Pentachlorodibenzofuran	2.02	J	0.311	U	0.765	U	0.168	U	2.48	U	0.285	U
1,2,3,4,7,8-Hexachlorodibenzofuran	5.69	J	1.62	J	3.07	J	0.128	U	6.5	U	0.252	U
1,2,3,6,7,8-Hexachlorodibenzofuran	0.83	U	0.61	J	0.475	U	0.111	U	1.56	U	0.224	U
1,2,3,4,6,7,8-Heptachlorodibenzofuran	26.5	J	1.71	U	1.21	U	1.65	U	3.19	J	1.36	U
1,2,3,4,7,8,9-Heptachlorodibenzofuran	3.47	J	0.415	U	0.288	U	0.449	U	0.88	U	0.67	U
Octachlorodibenzofuran	737		42.6	J	15.2	J	6.3	U	40.4	J	5.65	U
TEQ _{DF,M} (ND=1/2DL)	47.3	J	13.6	J	17.1	J	1.14	U	60.2	J	1.3	U
Dissolved Dioxin Furans (pg/L)												
2,3,7,8-Tetrachlorodibenzo-p-dioxin	--		--		--		0.117	U	6.56	J	0.153	U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	--		--		--		0.0675	U	0.272	UJ	0.0585	U
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	--		--		--		0.0745	U	0.141	UJ	0.069	U
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	--		--		--		0.0725	U	0.143	UJ	0.0715	U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	--		--		--		0.072	U	0.135	UJ	0.069	U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	--		--		--		0.79	U	2.13	J	1.14	U

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Octachlorodibenzo-p-dioxin	--	--	--	9.2	U	9.45
2,3,7,8-Tetrachlorodibenzofuran	--	--	--	0.044	U	20.7
1,2,3,7,8-Pentachlorodibenzofuran	--	--	--	0.0525	U	0.156
2,3,4,7,8-Pentachlorodibenzofuran	--	--	--	0.0515	U	0.145
1,2,3,4,7,8-Hexachlorodibenzofuran	--	--	--	0.05	U	1.12
1,2,3,6,7,8-Hexachlorodibenzofuran	--	--	--	0.0433	U	0.54
1,2,3,7,8,9-Hexachlorodibenzofuran	--	--	--	0.0625	U	0.172
2,3,4,6,7,8-Hexachlorodibenzofuran	--	--	--	0.0433	U	0.128
1,2,3,4,6,7,8-Heptachlorodibenzofuran	--	--	--	0.243	U	0.448
1,2,3,4,7,8,9-Heptachlorodibenzofuran	--	--	--	0.097	U	0.19
Octachlorodibenzofuran	--	--	--	1.08	U	6.43
TEQ _{DF,M} (ND=1/2DL)	--	--	--	0.263	U	9.22
					J	0.285

Notes

DL = detection limit

J = estimated value

ND = nondetect

U = compound analyzed, but not detected above detection limit

UJ = compound analyzed, but not detected above estimated detection limit

TEF = toxic equivalency factor

TRRP = Texas Risk Reduction Program

TEQ_{DF,M} (ND=1/2DL) = Toxic equivalents for 2,3,7,8-TCDD calculated using dioxins and furans and

mammalian toxic equivalency factors (Van den Berg et al. 2006) with nondetects set at one-half the

a - Only detected chemicals in at least one sample are listed.

b - ND excluded, Max DL when all ND.